

REMARKS

Claims 1-10 were previously pending in this application.

Claims 1-10 stand rejected.

Claims 1-10 remain in the case for reconsideration.

Applicant requests reconsideration and allowance of the claims in light of the following remarks.

Claim rejections – 35 USC § 103

Claims 1-10 stand rejected under U.S.C. 103(a) as being unpatentable over the combination of U.S. Pat. No. 6,319,794 issued to Akatsu et al. ("Akatsu") and U.S. Pat. No. 6,294,823 issued to Arafa et al. ("Arafa"), and further in view of 6,373,119 issued to Noda ("Noda").

The rejections are respectfully traversed.

On the contrary, claim 1 recites:

"a device isolation region formed in a predetermined region of the semiconductor substrate, the device isolation region having a *protrusion that is higher in level than the top surface* of the semiconductor substrate;

an impurity diffusion region formed in an active region surrounded by the device isolation region;

an etch stop spacer formed overlying a sidewall of the protrusion."

With the etch stop spacer formed overlying a sidewall of the protrusion [that is higher in level than the top surface of the semiconductor], the edge portion of the device isolation region is *not* recessed due to the etch stop spacer, thereby significantly improving leakage current characteristics. See page 7, line 23-page 8, line 8; page 10, lines 16-21. Such unexpected results of the present invention are nowhere shown in cited references.

In contrast, Akatsu merely teaches an etch stop spacer that is formed *below the top surface of the substrate*. FIG. 4d of Akatsu. Particularly, in Akatsu, the nitride spacer 211 is formed by filling the recess 241 (FIG. 4b of Akatsu), not formed overlying a sidewall of the protrusion as in the claimed invention.

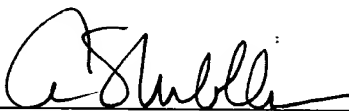
For these reasons, even if Arafa were combined with Akatsu, the combination would not teach or suggest the features recited in claim 1, because it would merely teach or suggest an etch stop spacer formed below the stop surface of the substrate.

Thus, applicant respectfully submits that the Examiner has not presented a *prima facie* case of obviousness. Accordingly, the rejection of claim 1 should be withdrawn. Also, claims 2-10, which depend from claim 1, recite additional features that are not disclosed or suggested by the prior art, and are therefore allowable, based on this dependency, and based on the dependent claims themselves.

For the foregoing reasons, reconsideration and allowance of claims 1-10 of the application as amended is solicited. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

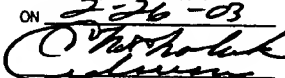
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ON 2-26-03


VERSION WITH MARKINGS TO SHOW CHANGES MADE

No Amendments made at this time.